BIOLOGICAL RESOURCES REPORT

PROJECT NAME:

BAGLEY IMPROVEMENT PLAN (FOR TPM 17341)

AND

MAJOR GRADING PERMIT (L-15684)

RANCHO SANTA FE
SAN DIEGO COUNTY, CALIFORNIA

PREPARED FOR

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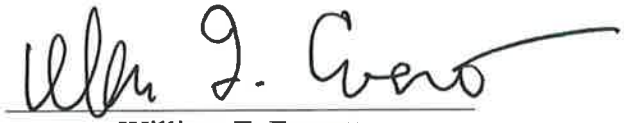

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CELEBRATING 38 YEARS OF ENVIRONMENTAL EXCELLENCE

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SUMMARY OF FINDINGS

The Bagley project is the application for an Improvement Plan and Major Grading Permit to allow construction of single-family residences on six existing legal lots (TPM 17342) totaling 16.22 acres (gross). A biological reconnaissance of the project site (located east of Rancho Santa Fe, California) was conducted on 6 November 2012. The surrounding land uses are predominately agricultural and residential. The project site is not located within a Biological Resource Core Area (BRCA).

If implemented as proposed, direct impacts will result in the loss of 2.0 acres of Diegan Coastal Sage Scrub, 0.24 acres of Chamise Chaparral, and 10.76 acres of Non-Native Grassland. These impacts will be mitigated off-site in a County-approved mitigation bank within a BRCA area in the region, at ratios set forth by the Biological Mitigation Ordinance (BMO).

Because the project is located within the Multiple Species Conservation Program (MSCP) area, and is in a Minor Amendment Area within the MSCP, it will also require an amendment to the MSCP approved by federal and state agencies.

INTRODUCTION

The Bagley project is the application for an Improvement Plan and Major Grading Permit to allow construction of single-family residences on six existing legal lots (TPM 17342) totaling 16.22 acres (gross) at the extreme eastern boundary of Rancho Santa Fe in San Diego County, California (Figures 1 and 2). The site consists of five parcels with gentle rolling topography, ranging from 2.0 to 2.62 (net) acres, and a southernmost 3.20 acre (net) parcel contiguous with the County's Lusardi Creek Preserve. The parcel contains an existing open space easement resulting from a previous subdivision. The site is situated between 300 and 425 feet above sea level (Figure 3). The approximate USGS coordinates of the site are 33°01N, 117°10'W (Rancho Santa Fe 7.5 minute series quadrangle). The project site is not within a Biological Resource Core Area (BRCA).

Contiguous to the north of the project site is the fully urbanized Crosby Ranch development. On the east and west side of the northern four project parcels are fully developed parcels with similar residential/agricultural uses as those proposed for this project. The southern two project parcels are separated by two fully developed residential lots. The Lusardi Creek County Reserve borders the southernmost project parcel on the south, and both project parcels have developed residential/agricultural properties on the east. To the west of the two southern project parcels is an undeveloped 10 acre parcel (Figure 4).

The project site is located within the Multiple Species Conservation Program (MSCP), an approved plan under the California Natural Communities Conservation Planning (NCCP) Program. Impacts to sensitive resources within the MSCP requires mitigation pursuant to the MSCP and the Biological Mitigation Ordinance (BMO), the County ordinance for implementing the MSCP. Conformance with the MSCP and BMO is required for all projects within the MSCP. In order to conform, a project must meet specified criteria for project design and mitigation. This report is intended to provide County staff with sufficient pertinent information to evaluate project conformance and to write the MSCP Findings. The project site is also located within a Minor Amendment Area of the MSCP (Figure 4). County staff are required to process the amendments to the MSCP to allow issuance of the appropriate permit(s). The U.S. Fish and Wildlife Service and California Department of Fish and Game must approve this Minor Amendment.

This report describes biological resources within the project site and 100 feet beyond on all sides. It further addresses actual and potential impacts resulting from the proposed grading and improvements. This report proposes measures to avoid impacts where possible, and mitigation measures to reduce unavoidable impacts to below a level of significance.

METHODS

To assess the biological resources of the project location I visited the site on 6 November 2012. Conditions were conducive to unrestricted plant and animal observation, with no cloud cover, temperatures in the high 70s, and no wind. The visit lasted from approximately 1130 to 1700. During my visit, I was able to examine the entire project site and adjacent areas. Three

previous visits (to conduct protocol surveys for California Gnatcatchers and directed surveys for sensitive plants) were made in May and June of 2011 (See Appendix E).

My observations on-site were recorded as they were made, and form the basis of this report and the project Biological Resources Map. Animals were identified using scat, tracks, burrows, vocalizations, or by direct observation with the aid of 10X42 Leica binoculars. Vegetation mapping was conducted in accordance with vegetation community definitions as described in Holland (1986) and Oberbauer (1996). In addition, vegetation mapping on-site was aided by the use of a digital color satellite photograph. It should be noted that all vegetation community mapping is verified on the ground to the greatest degree possible in the absence of a systematic land survey. All vegetation areas and boundaries are estimates subject to final delineation by a licensed Professional Land Surveyor.

The wetland and vernal pool survey was conducted the same day after the May 2011 California Gnatcatcher Survey. Survey methods were based on the County RPO wetland definition and additionally generally followed the protocol as set forth by the 1987 Army Corps of Engineers Wetland Delineation Manual (Wetland Training Institute 1995). The USGS 7.5 minute topographical map for the area was also reviewed for wetland indicators.

Sensitive Species and Habitats

Prior to the initial visit, a variety of sources were reviewed to ascertain the potential occurrence of sensitive species at the project site. First, soil types (Bowman 1973) were checked to determine if the site contains soils known to support sensitive plant species. Records searches for the USGS quadrangle and surrounding quads were done of the California Natural Diversity Data Base (CNDDB) and California Native Plant Society (CNPS) On-Line Inventory of Rare and Endangered Plants. Any sensitive species known to occur in the vicinity were given special attention, and available natural history information was reviewed. Seasonal occurrence patterns (*e.g.,* annual plants, migratory birds) were factored into survey plans in the event that site visits were made during time periods when certain sensitive species are not present or conspicuous. Information sources include the Jepson Manual (1993), Rare Plants of San Diego (Reiser 1994), A Flora of San Diego County, California (Beauchamp 1986), San Diego Native Plants (Lightner 2011), U.S. Fish and Wildlife Service Recovery Plans for Threatened/Endangered Species, the San Diego County Bird Atlas (Unitt 2004), and numerous other references, publications, and on-line resources. Typically, 15-20 field guides to various taxa are taken into the field for quick reference if necessary.

A list of sensitive species with potential to occur at the site was reviewed prior to field work (See Appendix D). All species on the list were reviewed, and those species requiring directed surveys were noted and given appropriate attention.

In the field, potentially sensitive plants species not readily identified *in situ* were photographed and/or collected for identification via keys or other methods. During site visits, all habitats were assessed for their suitability for occupation by any sensitive species with potential to occur.

RESULTS[1]

Soils

Several soil types are reported for the site (Figure 5) including Huerhuero loam, 2 to 9% slopes (HrC), Huerhuero loam 9 to 15% slopes (HrD), and Olivenhain cobbly loam, 9 to 30% slopes (OhE). See Figure 5 for a soils map of the project site. Although a detailed soil analysis is beyond the scope of this report, on-site examination appeared to confirm the presence of these soil types. Several small granitic boulder outcrops are found on the northern portions of the project site.

Botany

Vegetation communities on-site are a mosaic of Non-Native Grassland, Diegan Coastal Sage Scrub (CSS), Chamise Chaparral, and Eucalyptus Woodland with several small Disturbed and Urban/Developed areas.

Plant Communities

Non-Native Grassland (Holland Code 42200 - 11.33 acres)

On the project site this is the dominant vegetation community. Ripgut brome *Bromus diandrus,* wild oat *Avena* sp., and other non-native annual grasses dominate the habitat. In places, there are scatted and sparse individual CSS plant species. However, the density of the plants is insufficient to constitute any plant community or habitat other than Non-Native Grassland. The removal of this habitat will require off-site mitigation in a Biological Resource Core Area (BRCA).

Diegan Coastal Sage Scrub (Holland Code 32500 - 2.00 acres)

This sensitive habitat type consists of low, soft-woody subshrubs that occur in xeric conditions. Characteristic plant species include California sagebrush *Artemisia californica*, California buckwheat *Eriogonum fasciculatum*, black sage *Salvia mellifera*, sugar bush *Rhus ovata*, chamise *Adenostoma fasciculatum*, and deerweed *Lotus scoparius.* Within the six project lots, this habitat type occurs in the northernmost parcel. The removal of this habitat will require off-site mitigation in a Biological Resource Core Area (BRCA).

Eucalyptus Woodland (Holland Code - 79100)

A very small patch of this vegetation community type occurs on the northernmost of the six project parcels (See Biological Resources Map).

[1] Scientific and common names for plant species are derived from The Jepson Manual, 1993, U.C. Press; scientific and common names for birds from the A.O.U. Check-list of North American Birds, 1998, Allen Press, Inc.

Disturbed Habitat (Holland Code 11300 - 1.68 acres)

Two areas meeting the description of this habitat type occur on the project site: the first is along the west boundary of the northernmost four parcels. This area has apparently long been used as an access road providing secondary access to the adjacent parcel. The area is free of vegetation and is primarily bare mineral earth. The second disturbed area is on the east boundary of the northernmost two parcels. In part, it is used as a storage site for heavy equipment and a large number of palletized bricks and other block products. The remainder is bare mineral earth along the eastern fence line to the northern parcel boundary.

Urban/Developed (Holland Code 12000 - 0.93 acres)

These areas are within the right-of way for Artesian Road or Rio Vista Road, and are paved or landscaped with ornamental vegetation.

Chamise Chaparral (Holland Code 37200 - 0.24 acres)

The northernmost lot of the two southern project parcels (the one bordered by Artesian Road) is mostly a monoculture of this vegetation community type, dominated by chamise. This parcel burned during the Witch Creek Fire of 2007, but has essentially recovered. The removal of this habitat will require off-site mitigation in a Biological Resource Core Area (BRCA).

Zoology

During the site survey a variety of common resident bird species were observed. These included Anna's Hummingbird *Calypte anna*, Western Scrub-Jay *Aphelocoma californica*, and California Towhee *Pipilo crissalis*.

Mammals recorded from the site include Botta's Pocket Gopher *Thomomys bottae*, Desert Cottontail *Sylvilagus audubonii*, and Coyote *Canis latrans*. Reptiles observed include Western Fence Lizard *Sceloporus occidentalis* and Side-blotched Lizard *Uta stansburiana*.

Diversity of wildlife species detected is low, due possibly in part due to the season of the site visit, and in part due to existing edge effects form adjacent land uses. Other common wildlife species are likely to occur on-site. A complete list of animal species detected on the site is provided in Appendix B.

Sensitive Resources

Sensitive plants or animals are defined here as species of rare, threatened, or endangered status, or depleted or declining species according to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), or California Native Plant Society (CNPS). Sensitive habitats include those which are considered rare in the region, or support

sensitive plants or animals. In addition, species of concern to the County of San Diego that occur or have moderate to high potential to occur on-site are discussed below and in Appendix D.

Sensitive Habitats

Three sensitive habitats occur within the project site: Diegan Coastal Sage Scrub, Chamise Chaparral, and Non-Native Grassland. Diegan Coastal Sage Scrub and Chamise Chaparral are protected throughout the Southern California region. Removal of these habitats can only be accomplished with specific permission from the County, U.S. Fish and Wildlife Service, and California Department of Fish and Game. Suitable mitigation is required. Non-Native Grassland is considered important raptor foraging habitat. The County also considers this habitat type sensitive and requires mitigation for impacts associated with development.

Sensitive Species

Surveys of the project site were conducted with special attention to looking for plant and animal species and habitats that are considered sensitive according to the County, USFWS, CDFG, CNPS, and the CDFG's Natural Diversity Database (CNDDB) record for the Rancho Santa Fe 7.5 minute quadrangle. The site lacks the appropriate habitat to support most of the county and CNDDB sensitive species. Sensitive plant species that were observed on-site, or that have medium or high potential to occur on-site, are discussed below:

Sensitive Plants

There are 21 sensitive plant species that were identified in the California Natural Diversity Database as occurring in the project vicinity (Rancho Santa Fe Quadrangle). Of these, the likelihood of occurrence on the project site of these species was determined to be low because a) they are conspicuous perennial plants that would have been detected during the site surveys, b) appropriate habitat clearly does not exist on-site (*e.g.*, vernal pools,), or c) as annual plants they would have been detected during the May and June directed site surveys. These species include:

Acanthomintha ilicifolia
Adolphia californica
Ambrosia pumila
Arctostaphylos glandulosa ssp. Crassifolia
Baccharis vanassae
Brodiaea filifolia
B. orcuttii
Ceanothus verrucosus
Chorizanthe orcuttiana
Comarostaphylis diversifolia ssp. Diversifolia
Coreopsis maritima
Corethrogyne filaginifolia var. linifolia
Dudleya varigata
D. viscida

Ferocactus viridescens
Hazardia orcuttii
Iva Hayesiana
Muilla clevelandii
Navarretia fossalis
Nemacaulis denudata var. denudata
Quercus dumosa

No sensitive plant species were found on the project site:

Sensitive Wildlife

No sensitive animal species were observed on the project site. Those species on the CNDDB for the Rancho Santa Fe USGS quad, or on the County of San Diego list of species of concern with a moderate or high likelihood of occurring, are discussed below:

LEGEND

Common Name *Scientific name*	CNDDB or County List Status
FE = Federal Endangered	SE = State Endangered
FT = Federal Threatened	ST = State Threatened
PE = Proposed Endangered	SR = State Rare
PT = Proposed Threatened	CSC = State Special Concern Species
FSC = Federal Special Concern Species	CEQA = Consideration required

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Southern Mule Deer — County List
Odocoileus hemionus

Southern Mule Deer are common residents of a variety of cismontaine habitats in San Diego County, and are legally hunted on both public and private lands. They are highly adaptable and even occur along the coast at Torrey Pines State Preserve. Small populations isolated by development may eventually disappear, which is apparently the reason it is currently considered a sensitive species. In most rural residential settings the species seems to persist without difficulty. It is unlikely that the species will be negatively impacted by the proposed project. This species is currently slated for removal from the County Sensitive Species List.

San Diego Black-tailed Jackrabbit — County List
Lepus californicus bennettii

Open or semi-open country is the preferred habitat for this species. They occur in the upper Sonoran life zone from the coast to nearly 6000 feet on Cuyamaca Peak. This species often occupies land highly desirable for development. There is no doubt that ideal habitat has been significantly reduced in the last 100 years. Project implementation will remove a small area of potentially suitable habitat for this species, but due to the nearby large open space reserves, these impacts will not have a significant impact on this species.

Golden Eagle — CNDDB
Aquila chrysaetos — CSC

This species was once a more common permanent resident throughout the open areas of San Diego County. Numbers are now reduced near human population centers, but in general, populations seem stable. However, this species' natural densities are very low, its reproductive rate is very low, it is at the apex of a food chain (even including small carnivores in its diet), and its large body size makes it a tempting target for shooters. It is the symbol of the wilderness for many people. It thus warrants special consideration whenever involved in any land management decision.

Habitat destruction or alteration could reduce this species in the County, but extensive interior chaparral and steep slopes, together with its preferred nesting habitat of rock cliffs, offer some refuge for the species. No Golden Eagles were seen during the site surveys, but a known and historic nesting site is located near Lake Hodges, about five miles northeast of the project site.

On the project site, it is unlikely that Golden Eagles forage for prey, because the species is notoriously shy of areas near urban development. Steep, chaparral-covered slopes nearer the Lake Hodges territory provide adequate secure range for the species. The ultimate development of the area additionally reduces the significance of this area for utilization by this species. No impacts to this species are anticipated as a result of project implementation.

White-tailed (Black-shouldered) Kite — County List
Elanus caeruleus

Nomadic might be the best descriptor for this species as it occurs in San Diego County. Its population has experienced steep rises and falls since the 19th century, often unrelated to development. It prefers grasslands for foraging, and it known for its communal roosting and nesting habits. This species will occupy certain areas for years, then mysteriously be absent. It could be that this movement is related to its dependence on a single prey species, the California vole or meadow mouse *Microtus californicus*.

It is essential for this species to have suitable roosting trees near its foraging sites. It almost certainly occurs near the project site in the Lusardi Creek County Preserve. Only very small

portions of the project site are suitable for this species, thus significant impacts to this species are not anticipated.

Turkey Vulture — County List
Cathartes aura

Turkey Vultures forage for carrion over Non-Native Grassland. They are common migrants and winter residents in San Diego County, and were a formerly more common breeding species. No breeding habitat exists on or near the project site, thus the site may occasionally be used as foraging habitat for this species. None were recorded during the site surveys. Impacts to this species are not anticipated. This species is currently slated for removal from the County Sensitive Species List.

Coastal California Gnatcatcher Discussion

Because there is a very small area of CSS located on the project site, and because the species is known to occur in the area, discussion is warranted regarding the possibility of the California Gnatcatcher occurring on-site. The California Gnatcatcher *Polioptila californica* is a federal threatened species, a state species of concern, and is a "target species" of the NCCP process. This species is a non-migratory resident whose range covers the coastal plains and foothills of Southern California and northern Baja California. In San Diego County, it is widespread in coastal lowlands below about 2,000 feet elevation and typically occurs in or near Coastal Sage Scrub (CSS). The California Gnatcatcher is seriously declining due to loss of habitat. Between 85% and 90% of this species' habitat has been lost to urban or agricultural development. It is almost extirpated from Ventura, San Bernadino, and Los Angeles counties. The population is estimated to be just under 5000 pairs. San Diego County appears to be the center of abundance within the United States for this species.

On the project site, CSS is limited to a very small area located along the northern project boundary. Focused presence/absence protocol surveys for this species were conducted on the project site. No California Gnatcatchers were detected. Full details of the focused surveys can be found in Appendix E. Impacts to the California Gnatcatcher from this project are not anticipated.

No listed species were detected on the project site, and none are considered highly likely to occur. No additional focused surveys should be required to investigate listed species' occurrence.

Large mammals, such as Mule Deer and Mountain Lion prefer large unfragmented natural areas that offer extensive forage or hunting opportunities as well as the opportunity for movement across long distances. The project site is nearly surrounded by existing development. Due to this and the small footprint of the proposed development, significant impacts to large mammals are not anticipated.

Raptor Habitat. The Non-Native Grassland on the site likely serves occasionally as raptor foraging habitat. Some of the trees on and adjacent to the site may provide **nesting habitat** for raptors such as Red-tailed Hawks. Project implementation will remove a very small area of potentially suitable habitat for this species, but due to the nearby large open space reserves and acquisition of appropriate mitigation lands, these impacts will not have a significant impact on raptor foraging habitat.

Native Wildlife Nursery Sites, which are considered sensitive resources that require protection, are defined in the County of San Diego Guidelines for Determining Significance - Biological Resources as "sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies". Features such as individual raptor or woodrat nests do not constitute places where wildlife *concentrate*, thus they do not meet this definition and are therefore not considered Native Wildlife Nursery Sites. No Native Wildlife Nursery Sites occur on the site or will be impacted by project implementation.

Wildlife Movement Corridors

A wildlife corridor can be defined as a linear landscape feature allowing animal movement between two patches of habitat. Connections between extensive areas of open space are integral to maintain regional diversity and population viability. In the absence of corridors, habitats become isolated islands surrounded by development. Fragmented habitats support significantly lower numbers of species and increase the likelihood of local extinction for select species when restricted to small isolated areas of habitat. Areas that serve as wildlife movement corridors are considered biologically sensitive.

Wildlife corridors can be defined in two categories: regional wildlife corridors and local corridors. Regional corridors link large sections of undeveloped land and serve to maintain genetic diversity among wide-ranging populations. Local corridors permit movement between smaller patches of habitat. These linkages effectively allow a series of small, connected patches to function as a larger block of habitat and perhaps result in the occurrence of higher species diversity or numbers of individuals than would otherwise occur in isolation. Target species for wildlife corridor assessment typically include species such as bobcat, mountain lion, and mule deer.

The project site has no characteristics that would define it as a wildlife corridor. Furthermore, anticipated development in the area will undoubtedly preclude movement of terrestrial animal species in areas other than significant drainages or dedicated major corridors in the area (*e.g.*, the San Dieguito River and Lusardi Creek Reserve). The project as proposed will not affect any wildlife corridors.

Wetland and Vernal Pool Survey

The County of San Diego requires that wetland surveys be completed using the wetlands definition within the County's Resource Protection Ordinance (RPO). This definition includes:

All lands which are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are "wetlands":

a. At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);

b. The substratum is predominantly undrained hydric soil; or

c. The substratum is nonsoil and is saturated with water or covered by water at some time during the growing season each year.

Other pertinent definitions from the RPO include:

Mature Riparian Woodland - A grouping of sycamores, cottonwoods and/or oak trees having substantial biological value, where at least ten of the trees have a diameter of six inches or greater.

Riparian Habitat - An environment associated with the banks and other land adjacent to freshwater bodies, rivers, streams, creeks, estuaries, and surface-emergent aquifers (such as springs, seeps, and oases). Riparian habitat is characterized by plant and animal communities which require high soil moisture conditions maintained by transported freshwater in excess of that otherwise available through local precipitation.

It should also be noted that the County's definition of wetlands varies from the U.S. Army Corps of Engineers' (ACOE) definition. The ACOE frequently requires that formal or informal wetland delineations be conducted under guidelines set forth in the 1987 Corps of Engineers Wetland Delineation Manual. The ACOE defines a wetland as "an area... inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Typically, ACOE wetlands are characterized by the presence of hydrophytic vegetation, hydric soils, and wetland hydrology.

No County of San Diego or other jurisdictional wetlands were identified during the survey of the project site. There are two drainage features located on the project site. The first is a shallow drainage feature that originates on the southern of the two parcels contiguous with Artesian Road. This drainage carries runoff from storm events, transports the flow to the north via a culvert under the road, and continues across (east to west) the northern of the two parcels contiguous with Artesian Road.

The second drainage feature transects the southernmost of the six project parcels, providing for east to west flow. The feature is the uppermost limit of an unnamed tributary of Lusardi Creek. As part of a previous subdivision, this drainage feature was placed into open space and will not be impacted by project implementation.

On the project site, the drainage features contain no hydrophitic vegetation, there is no hydrology, and no hydric soils. In addition, the drainages are not shown as blue line streams, and there are no indications of characteristics that would require classification as a Waters of the U.S. (e.g., apparent bed and bank formations). The project site contains no wetlands as defined by the County RPO or any other jurisdictional agency. Thus, the proposed project will have no impacts on wetland resources.

Vernal pools are seasonally flooded depressions found on ancient soils with an impermeable layer such as a hardpan, claypan, or volcanic basalt. The impermeable layer allows the pools to retain water much longer then the surrounding uplands; nonetheless, the pools are shallow enough to dry up each season. Vernal pools often fill and dry out several times during the rainy season. Only plants and animals that are adapted to this cycle of wetting and drying can survive in vernal pools over time.

These specialized plants and animals are what make vernal pools unique. As winter rains fill the pools, freshwater invertebrates, crustaceans, and amphibians emerge. Vernal pool plants sprout underwater, some using special floating leaves and air-filled stems to stay afloat. Some of these plants even flower underwater. In spring, flowering plants produce the brightly-colored concentric rings of flowers that vernal pools are famous for. Insects and crustaceans produce cysts and eggs, and plants produce seeds that are buried in the muddy pool bottom. The mud protects cysts, eggs, and seeds from the hot, dry summers.

Vernal pools and the species that inhabit them are considered an important natural resource in California and worldwide, as they host a wide variety of endangered, threatened, and sensitive species of plants and animals.

By definition, vernal pools exist in areas where no natural drainage occurs. There are known vernal pool sites in the general vicinity of the project site, but on and near the project site there are no vernal pools or areas suitable for vernal pool formation. No impacts to vernal pools will result from project implementation.

PERMITTING

Mitigation for the unavoidable loss of Coastal Sage Scrub, Non-Native Grassland, and Chamise Chaparral will be required for this project. In conformance with MSCP and BMO, a Minor Amendment to the MSCP will also need to be prepared and submitted to the Wildlife Agencies for approval.

SIGNIFICANCE CRITERIA

Direct impacts occur when biological resources are altered or destroyed during the course of, or as a result of, project implementation. Examples of such impacts include removal or grading of vegetation, filling wetland habitats, or severing or physically restricting the width of wildlife corridors. Other direct impacts may include loss of foraging or nesting habitat and loss of individual species as a result of habitat clearing. Indirect impacts may include elevated levels of

noise or lighting, change in surface water hydrology within a floodplain, and increased erosion or sedimentation. These types of indirect impacts can affect vegetation communities or their potential use by sensitive species. Permanent impacts may result in irreversible damage to biological resources. Temporary impacts are interim changes in the local environment due to construction and would not extend beyond project-associated construction, including revegetation of temporarily disturbed areas adjacent to native habitats.

The California Environmental Quality Act (CEQA) Guidelines define "significant effect on the environment" as a "substantial, or potentially substantial adverse change in the environment." The CEQA Guidelines further indicate that there may be a significant effect on biological resources if the project will:

A. Substantially affect an endangered, rare or threatened species of animal or plant or the habitat of the species.

B. Interfere substantially with the movement of any resident or migratory fish or wildlife species to the extent that it adversely affects the population dynamics of the species.

C. Substantially diminish habitat for fish, wildlife, or plants.

PROJECT IMPACTS

Direct Impacts

Direct impacts from the proposed project as currently designed will result in the loss of 2.0 acres of Diegan Coastal Sage Scrub, 0.24 acres of Chamise Chaparral, and 10.76 acres of Non-Native Grassland.

A summary of the proposed direct impacts and mitigation is provided in Table 1. This includes impacts associated with road grading, house pads, utility easements, cut and fill slopes, and the 100 foot fire buffer (Limited Building Zone) required by the County of San Diego.

Table 1. Existing, impacted, and preserved habitat on the project site

PLANT COMMUNITY	ACREAGE ON-SITE	IMPACTED ACREAGE	IMPACT NEUTRAL	ACREAGE PRESERVED ON-SITE	OFF-SITE MITIGATION REQUIRED (RATIO[2])
Non-Native Grassland (Tier III)	11.33	10.76	0.57[1]	0.57[1]	5.38 (0.5:1)
Diegan Coastal Sage Scrub (Tier II)	2.00	2.00	0	0	2.0 (1:1)
Eucalyptus Woodland	0.04	N/A	N/A	N/A	0
Disturbed Habitat	1.68	N/A	N/A	N/A	0
Urban/Developed	0.93	N/A	N/A	N/A	0
Chamise Chaparral Tier III)	0.24	0.24	N/A	0	0.12 (0.5:1)
Total	16.22	12.43	0.57	0.57	7.50

1. Contained within an existing open space easement
2. Ratios pursuant to the Biological Mitigation Ordinance (BMO)

No off-site impacts to sensitive habitats will result from this project.

Indirect Impacts

There is the potential for indirect impacts to occur as a result of implementation of the proposed project. The areas where indirect impacts have the potential to occur could extend from the development edge into conserved habitat (such as the Lusardi Creek Reserve) due to such activities as excessive landscape irrigation, vegetation trampling outside developed areas, and introduction of non-native species (*e.g.,* argentine ants, cats, non-native invasive plant species). These indirect impacts are referred to as "edge effects." There is the potential for indirect impacts on animals as a result of an increase in noise, dust, and light during construction activities and from vehicle use. There is also the potential for the introduction of "urban" runoff into nearby drainages. These indirect impacts are considered unavoidable due to the size of the project, land uses on-site, and existing surrounding land uses. It should be noted, however, that most of the project site is currently impacted due to existing edge effects from the many contiguous residential and agricultural land uses adjoining the site.

Indirect impacts from edge effects are considered adverse, but not significant, because the site is mostly disturbed and existing edge effects are already dominating the site. Additional edge effects would be incremental. The potential for increased sediment load to the drainages associated with construction is considered adverse, but can be avoided by use of Best Management Practices (BMPs) to minimize sedimentation.

Cumulative Impacts

Cumulative impacts consider the potential regional effects of a project and how a project may affect an ecosystem or one of its members beyond the project limits and on a regional scale.

Currently, portions of the project site provide habitat for CSS and Chaparral plant and animal species, plus raptor foraging habitat (NNG). If implemented, the proposed project would result in a minor addition to the cumulative loss of habitat within San Diego County. This impact is adverse, but not significant, due to the amount of remaining undisturbed habitat in the region. The MSCP and recent General Plan Update adequately address cumulative impacts within the County.

MITIGATION

Impacts to the CSS, Non-Native Grasslands, and Chamise Chaparral are considered significant and must be mitigated per the MSCP, BMO, and California Environmental Quality Act. This includes all impacts from the proposed project.

The following mitigation measures are recommended to offset the loss of sensitive habitats:

1. Mitigation of impacts to Coastal Sage Scrub will be accomplished by the purchase off-site of suitable habitat credits within a County-approved mitigation bank within a BRCA. At the mitigation ratio set forth in the BMO (1:1), this results in 2.0 acres of credits to be purchased.

2. Mitigation of impacts to Non-Native Grassland and Chamise Chaparral will also be accomplished by the purchase off-site of equivalent habitat credits within a County-approved mitigation bank within a BRCA. The County requires these habitat types to be mitigated at a 0.5:1 ratio. Thus, a total of at least 5.47 acres mitigation credit will be purchased.

3. Implementation of Best Management Practices during construction, such as erosion and sediment control and the diversion of runoff water to detention basins, will reduce impacts from temporary construction activities to a level less than significant.

The exact method and location of the required mitigation for the project will be determined prior to the initiation of the minor amendment process, and is subject to the availability of suitable mitigation locales within a BRCA in the MSCP area.

The mitigation as proposed is deemed to be adequate to reduce the overall impacts of the proposed project to a level below significant, and to provide conformance with the MSCP and BMO.

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Figure 1. Location of project in regional context. Thomas Bros. Map page #1168 J3.

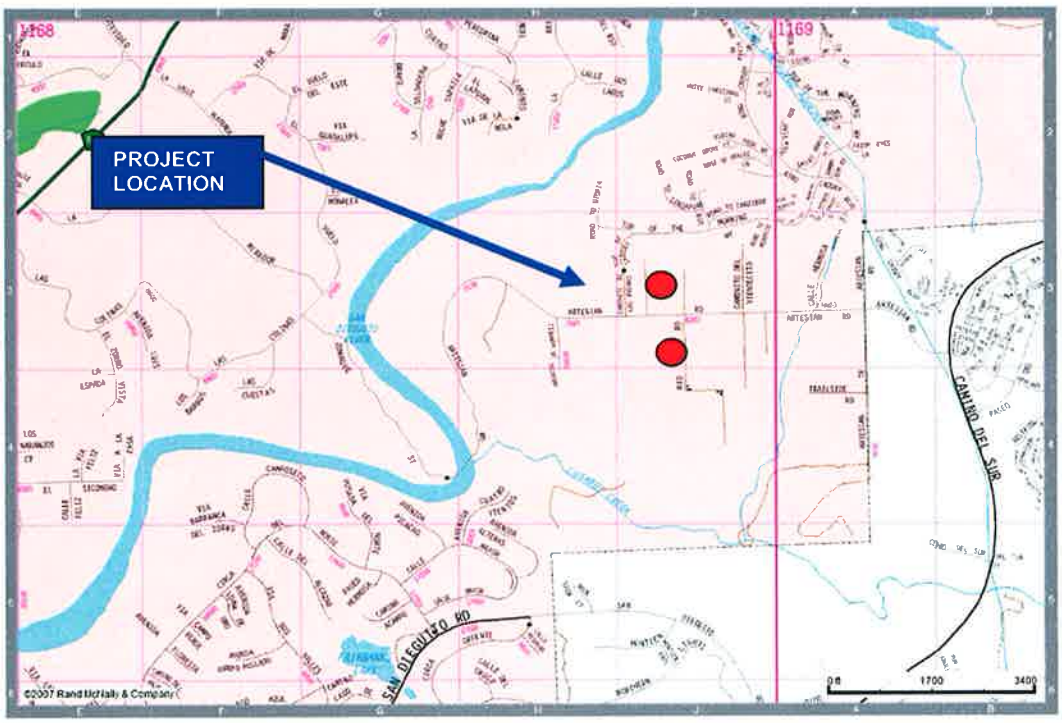

Figure 2. Detail location map of project. Thomas Bros. Map page #1168, J3.

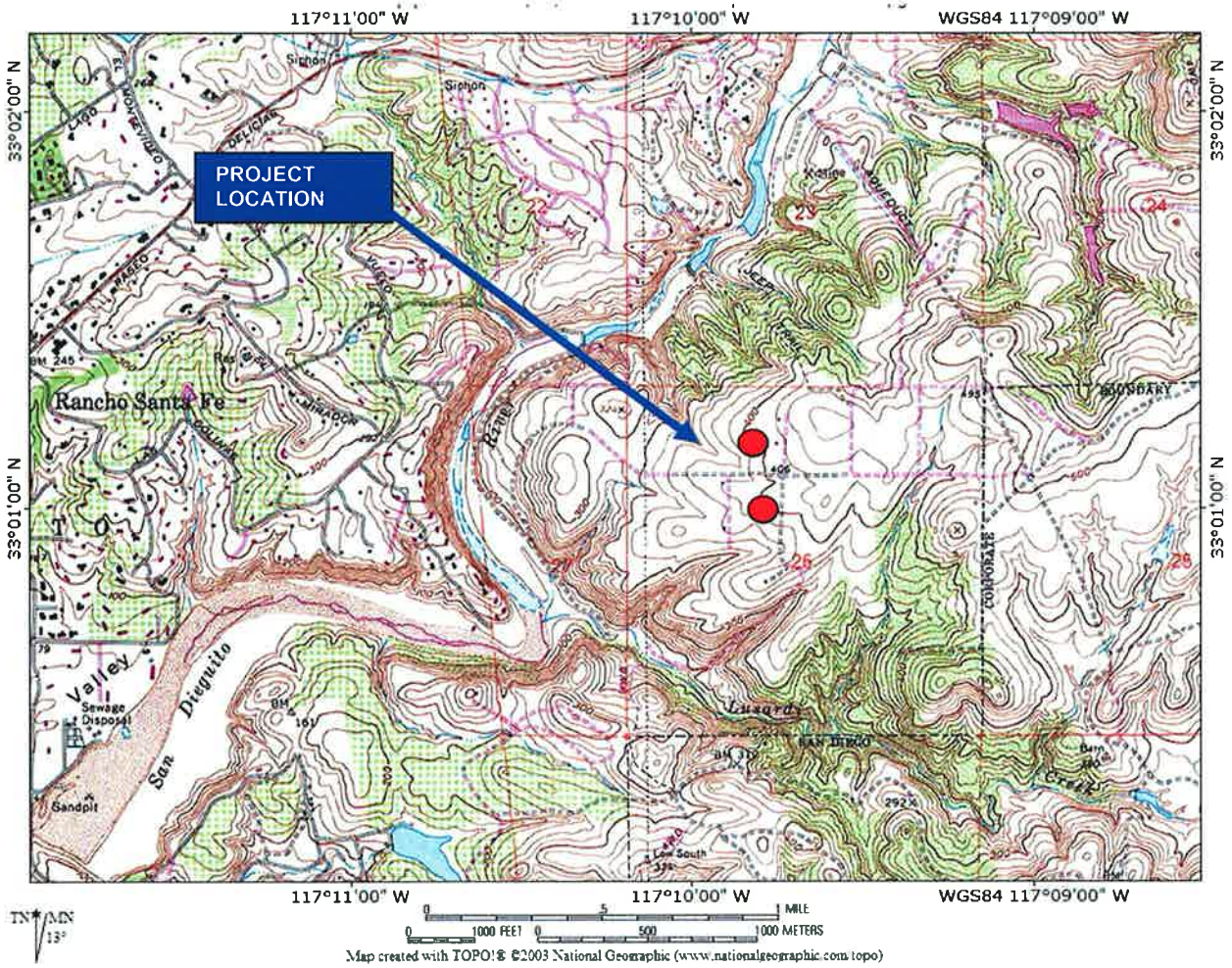

Figure 3. Topographical map showing project location. Taken from USGS Rancho Santa Fe 7.5 minute series quadrangle.

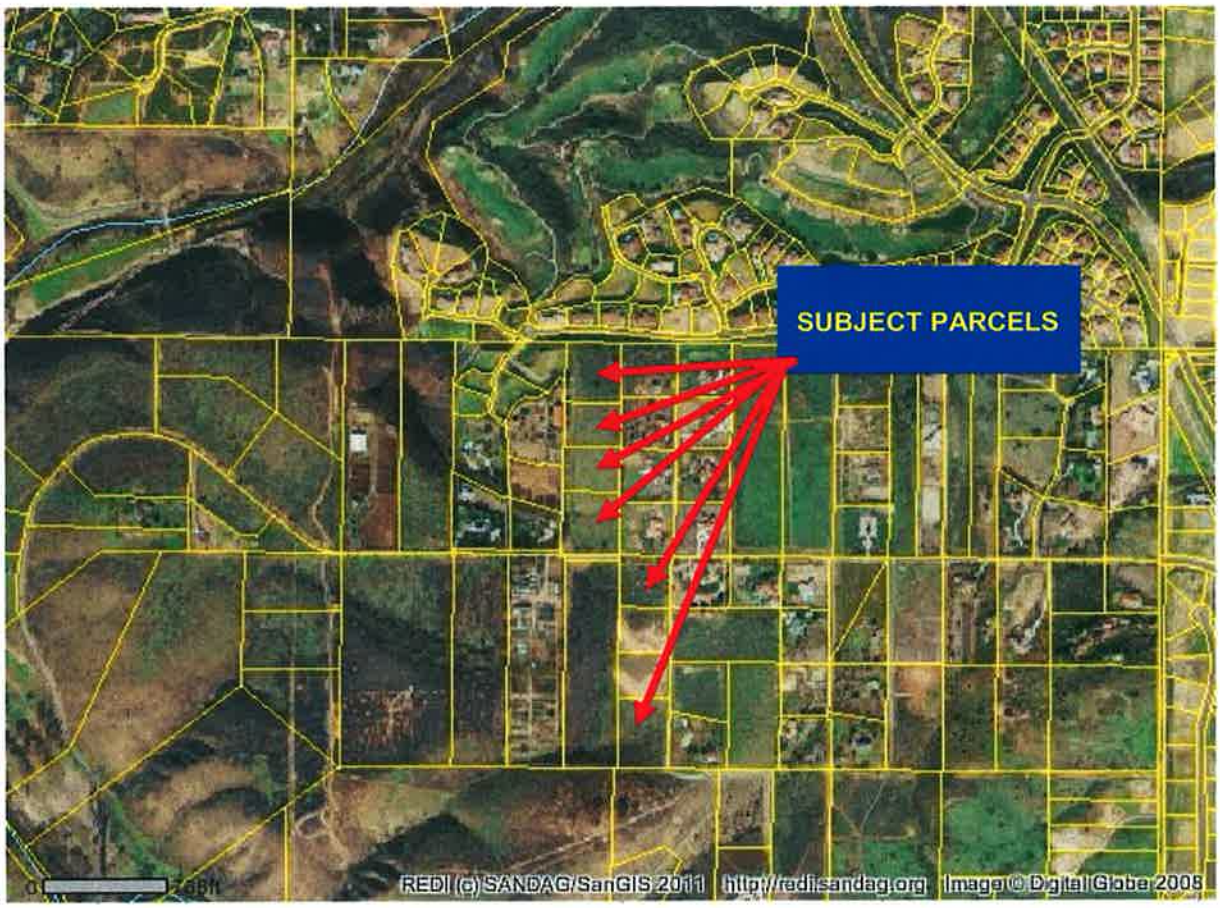

Figure 4. Close-up satellite photograph of project location (photograph by SANDAG/SanGIS 2008), showing parcel boundaries for the Survey location adjacent properties. Top of photo is true north.

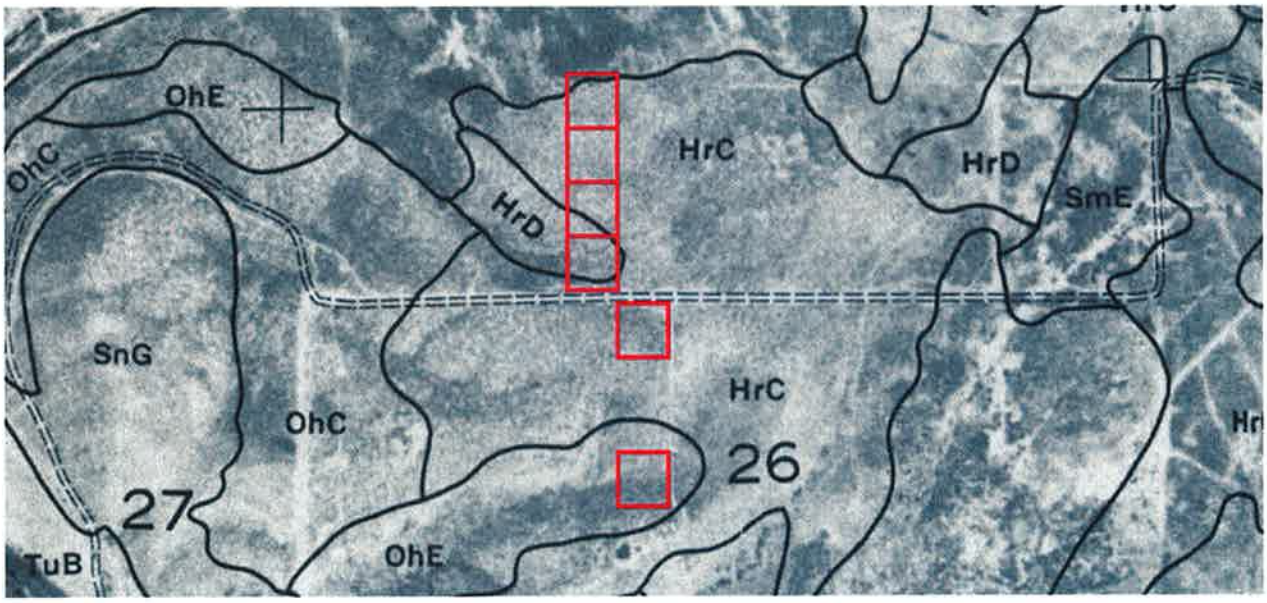

Figure 5. Soils map of the project site.

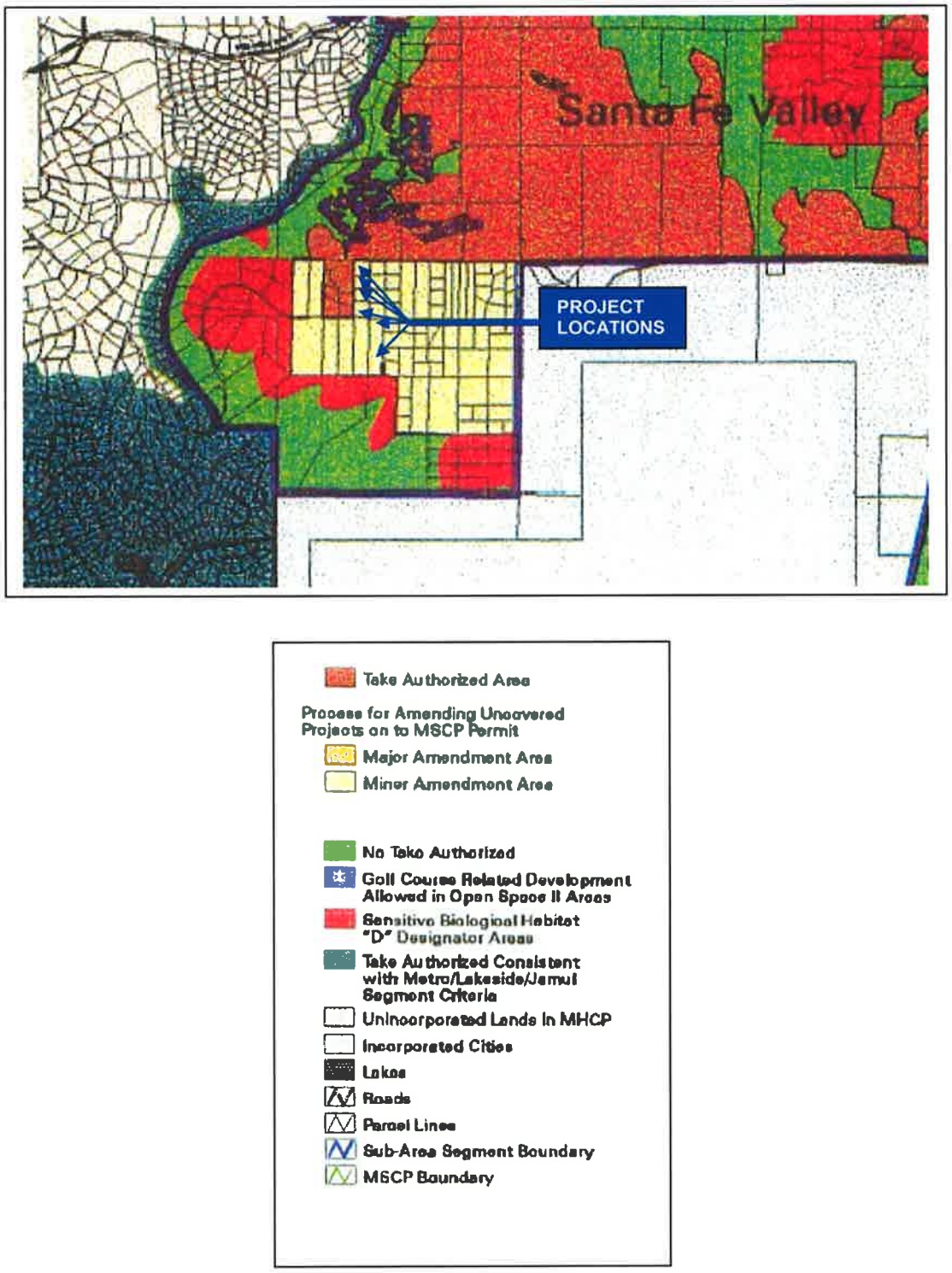

Figure 6. From MSCP Subarea Plan, Lake Hodges Segment (Fig. 1-2)

APPENDIX A

PLANT SPECIES OBSERVED ON THE PROJECT SITE

ANGIOSPERMS (DICOTS)

Aizoaceae - Fig-Marigold Family

Carpobrotus edulis
* Hottentot fig

Anacardiaceae - Sumac Family

Malosma laurina
Laurel sumac
Rhus ovata
Sugar bush
* Schinus molle
Peruvian pepper tree
* Schinus terebinthifolius
Brazilian pepper tree

Apiaceae (Umbelliferae) - Carrot Family

* Foeniculum vulgare
Sweet fennel

Asteraceae (Compositae) - Sunflower Family

Artemisia californica
California sagebrush
Baccharis pilularis
Coyote brush
* Centaurea melitensis
Tocalote
* Conyza floribunda
Horseweed

* Cynara cardunculus
Artichoke thistle
Heterotheca grandiflora
Telegraph weed
Isocoma menziesii
Coast goldenbush

Brassicaceae (Cruciferae) - Mustard Family

* Brassica sp.
Mustard

Cactaceae - Cactus Family

Opuntia sp.
Prickly pear

Chenopodiaceae - Goosefoot Family

* Salsola tragus
Russian thistle

Cistaceae - Rock-rose Family

Helianthemum scoparium
Rock rose

Ericaceae - Heath Family

Xylococcus bicolor
Mission manzanita

Fabaceae (Leguminosae) - Pea Family

Lotus scoparius ssp. scoparius
Deerweed

Geraniaceae - Geranium Family

* Erodium sp.
Filaree
* Erodium cicutarium
Red-stem filaree

Lamiaceae (Labiatae) - Mint Family

Salvia mellifera
Black sage

Myrtaceae - Myrtle Family

Eucalyptus sp.
* Eucalyptus

Pinaceae - Pine Family

Pinus sp.
* Ornamental pine

Polygonaceae - Buckwheat Family

Eriogonum fasciculatum ssp. fasciculatum
California buckwheat

* Rumex crispus
Curley dock

Rosaceae - Rose Family

Adenostoma fasciculatum
Chamise
Heteromeles arbutifolia
Toyon

Rhamnaceae - Buckthorn Family

Ceanothus tomentosus
Ramona lilac

Rubiaceae - Madder Family

Galium sp.
Bedstraw

Rutaceae - Citrus Family

Cneoridium dumosum
Spice bush

Sapindaceae - Soapberry Family

* Myoporum sp.
Myporum

Solanaceae - Nightshade Family

* Nicotiana glauca
Tree tobacco

ANGIOSPERMS (MONOCOTS)

Poaceae (Gramineae) - Grass Family

* Avena sp.
Wild oats
* Brachypodium pinnatum
False brome
* Bromus diandrus
Ripgut grass
* Bromus madritensis ssp. rubens
Red brome
* Cortaderia jubata
Pampas grass
* Cynodon dactylon
Bermuda grass
* Lolium perenne
Perennial ryegrass
* Pennisetum setaceum
Fountain grass

APPENDIX B

WILDLIFE SPECIES OBSERVED OR DETECTED ON THE PROJECT SITE

BIRDS

Mourning Dove	*Zenaida macroura*
Anna's Hummingbird	*Calypte anna*
Common Raven	*Corvus corax*
California Towhee	*Pipilo crissalis*
White-crowned Sparrow	*Zonotrichia leucophrys*
House Finch	*Carpodacus mexicanus*

MAMMALS

Coyote *Canis latrans*	Scats
Audubon Cottontail *Sylvilagus audubonii*	Observed
Southern Pocket Gopher *Thomomys bottae*	Burrows

AMPHIBIANS AND REPTILES

Western Fence Lizard
Sceloporus occidentalis

Side-blotched Lizard
Uta stansburiana

APPENDIX C

PHOTOGRAPHS OF THE PROJECT SITE

All photographs taken 2012 by W.T. Everett

Northern four parcels

Southern two parcels

PHOTOGRAPH INDEX

Yellow arrows and numbers indicate the locations and directions from which the following photographs were taken:

Photograph 1. View of the relatively undisturbed CSS on the northernmost parcel.

Photograph 2. View of Chamise Chaparral on the parcel adjacent with and on the south side of Artesian Road.

Photograph 3. View looking south across grazed area (NNG) on the parcel adjacent with and on the north side of Artesian Road.

Photograph 4. View looking east across the southernmost portion of the parcel adjacent with and on the north side of Artesian Road.

Photograph 5. View looking east across the southernmost portion of the southernmost parcel.

APPENDIX D

COUNTY LIST OF SENSITIVE SPECIES WITH POTENTIAL TO OCCUR ON THE PROJECT SITE

Legend

Status

1 = Federally Endangered
2 = Federally Threatened
3 = State Endangered
4 = State Threatened
5 = State Rare
6 = MSCP Narrow Endemic
7 = Not State or Federal Listed
8 = County Sensitive Plant List Designation (A-D
Ext = Extirpated

Potential to Occur On-site

L = Low
M = Moderate
H = High
U = Unknown (Sufficient data are not available on the status, distribution, abundance, or natural history of the species to make a reliable determination of the probability of occurring on-site.)

Rationale

1 = Would likely have been detected during directed surveys if present
2 = Appropriate suitable habitat not present on-site. Habitat type may be present on-site, but is likely disturbed, fragmented, isolated, small in extent, dominated by edge effects, may not have appropriate soil type, micro habitat conditions, or is otherwise not suitable for use by the sensitive species.
3 = Insufficient natural history information is available to determine if presence is likely

Common Name	Scientific Name	Status	Observed On-Site (Y or N)	Potential to Occur On-site	Habitat Preferences
Monarch butterfly	*Danaus plexippus*	7	N	L	Grassland, Oak Woodland, Montane Meadow

Quino checkerspot butterfly	*Euphydryas editha quino*	1	N	L	Coastal Sage Scrub, Grassland, Chamise Chaparral, Desert Scrub, Vernal Pools
San Diego thornmint	*Acanthomintha ilicifolia*	2,3	N	L	Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools
San Diego needlegrass	*Achnaterum diegoense*	7	N	L	Coastal Sage Scrub, Grassland, Salt or Alkali Marsh
San Diego adolphia	*Adolfia californica*	7	N	L	Coastal Sage Scrub, Grassland
Shaw's agave	*Agave shawii*	7	N	L	Coastal Sage Scrub
Aphanisma	*Aphanisma blitoides*		N	L	Coastal Sage Scrub, Coastal or Desert Dune
South Coast Saltbush	*Atriplex pacifica*	7	N	L	Coastal Sage Scrub, Chamise Chaparral
Golden snake cactus	*Bergerocactus emoryi*	7	N	L	Coastal Sage Scrub
Orcutt's brodiaea	*Brodiaea orcuttii*	7	N	L	Grassland, Riparian, Oak Woodland, Chamise Chaparral, Vernal Pools
Lewis sun cup	*Camissonia lewsii*	7	N	L	Coastal Sage Scrub, Grassland
Seaside calandrinia	*Calandrina maritima*	7	N	L	Coastal Sage Scrub
Southern tarplant	*Centromedia (Hemizonia) parryi australis*	7	N	L	Grassland
Orcutt's pincushin	*Chaenactis glabriuscula orcuttiana*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Prostrate spineflower	*Chorizanthe procumbens*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Sea dahlia	*Coreopsis maritima*	7	N	L	Coastal Sage Scrub, Mixed Chaparral
San Diego sand aster	*Corethrogyne filaginifolia incana*	7	N	L	Coastal Sage Scrub, Chamise Chaparral

San Dieguito sand aster	*Corethrogyne filaginifolia linifolia*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Western dichondra	*Dichondria occidentalis*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
San Diego button celery	*Eryngium aristulatum parishii*	2,3	N	L	Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools
Cliff spurge	*Euphorbia misera*	7	N	L	Coastal Sage Scrub
Coast barrel cactus	*Ferocactus viridescens*	7	N	L	Coastal Sage Scrub
Orcutt's hazardia	*Hazardia orcuttii*	7	N	L	Coastal Sage Scrub
Graceful tarplant	*Holocarpha virgata elongata*	7	N	L	Grassland
Vernal barley	*Hordeum intercedens*	7	N	L	Grassland, salt or Alkali Marsh
Mesa horkelia	*Horkelia cuneata puberula*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Decumbent goldenbush	*Isocoma menziesii decumbens*	7	N	L	Coastal Sage Scrub, Chamise Chaparral, Vernal Pools
San Diego marsh elder	*Iva hayesiana*	7	N	L	Coastal Sage Scrub, Grassland, Salt or Alkali Marsh
Robinson pepper grass	*Lepidium virginicum robinsonii*	7	N	L	Grassland
Small flowered microseris	*Microseris douglasii platycarpha*	7	N	L	Grassland
Willowy monardella	*Monardella linoides viminea*	1,3	N	L	Coastal Sage Scrub, Riparian
California spine flower	*Mucronea californica*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Coastal or Desert Dune
San Diego goldenstar	*Muilla clevelandii*	7	N	L	Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools

Little mousetail	*Myosurus minimus apus*	7	N	L	Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools
Spreading navarretia	*Navarretia fossalis*	2	N	L	Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools
California adder's tongue fern	*Ophioglossum californicum*	7	N	L	Mixed Chaparral, Grassland, Vernal Pools
Snake cholla	*Opuntia parryi serpentina (O. californica)*	7	N	L	Coastal Sage Scrub
Orcutt grass	*Orcuttia californicum*	1,3	N	L	Grassland, Vernal Pools
Golden-rayed Pentachaeta	*Pentachaeta aurea*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Brand's phacelia	*Phacelia stellaris*			L	Coastal Sage Scrub, Coastal or Desert Dune
Cooper's rein orchid	*Piperia cooperi*	7	N	L	Grassland, Chamise Chaparral
San Diego mesa mint	*Pogogyne abramsii*	1,3	N	L	Grassland, Chamise Chaparral, Vernal Pools
Mesa club moss	*Selaginella cinerascens*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Rayless ragwort	*Senicio aphanactis*	7	N	L	Grassland
San Diego sunflower	*Viguiera laciniata*	7	N	L	Coastal Sage Scrub
San Diego fairy shrimp	*Branchinecta sandiegoensis*	1	N	L	Grassland, Vernal Pools
Riverside fairy shrimp	*Streptocephalus wootoni*	1	N	L	Grassland, Vernal Pools
California lindellaria	*Linderiella occidentalis*		N	L	Grassland, Vernal Pools

Western spadefoot toad	*Scaphiopus hammondii*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Freshwater Marsh, Vernal Pools
San Diego banded gecko	*Coleonyx variegates blainvillei*	7	N	L	Riparian, Freshwater Marsh, Montane Meadow, Lakes and Bays
San Diego horned lizard	*Phrynosoma coronatum blainvillei*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral, Mixed Conifer
Coronado skink	*Eumeces skiltonianius interparietalis*	7	N	L	Coastal Sage Scrub, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh
Orange-throated whiptail	*Cnemidophorus hyperythrus*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral
Silvery legless lizard	*Anniella pulchra pulchra*	7	N	L	Coastal Sage Scrub, Grassland, Riparian, Coastal or Desert Dune
Coastal rosy boa	*Charina trivirgata roseoffusca*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Oak Woodland, Chamise Chaparral
San Diego ringneck snake	*Diadophis punctatus similis*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest

Yuma myotis	*Myotis yumanensis*	7	N	U	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
Pallid bat	*Antrozous pallidus*	7	N	U	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	7	N	U	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays

Big free-tailed bat	*Nyctinomops macrotis*	7	N	U	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
Greater western mastiff bat	*Eumops perotis californicus*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
San Diego desert woodrat	*Neotoma lepida intermedia*	7	N	L	Coastal Sage Scrub, Riparian, Oak Woodland, Chamise Chaparral
Pacific pocket mouse	*Perognathus longimembris*	1	N	L	Coastal Sage Scrub, Grassland, Coastal or Desert Dune
Dulzura California pocket mouse	*Chaetodipus californicus femoralis*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer

Southern mule deer	*Odocoileus hemionus*	7	N	M	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	7	N	M	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
Southern grasshopper mouse	*Onychomys torridus Ramona*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise Chaparral
American badger	*Taxidea taxus*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Canada Goose	*Branta canadensis*	7	N	L	Grassland, Lakes and Bays
Peregrine Falcon	*Falco peregrinus anatum*	2,3	N	L	Grassland, Freshwater Marsh, Salt or Alkali Marsh, Lakes and Bays
Merlin	*Falco columbarius*	7	N	L	Grassland, Salt or Alkali Marsh
Northern Harrier	*Circus cyaneus hudsonius*	7	N	L	Grassland, Freshwater Marsh, Salt or Alkali Marsh
Cooper's hawk	*Accipiter cooperi*	7	N	L	Grassland, Riparian, Oak Woodland
Sharp-shinned hawk	*Accipter striatus*	7	N	L	Coastal Sage Scrub, Oak Woodland, Mixed Conifer

Great blue heron	*Ardea herodias*	7	N	L	Grassland, Freshwater Marsh, Lakes and Bays
White-tailed (Black-shouldered) kite	*Elanus caeruleus*	7	N	M	Grassland, Riparian
Burrowing Owl	*Athene cunicularia hypugea*	7	N	L	Coastal Sage Scrub, Grassland, Desert Wash, Coastal or Desert Dune
Short-eared Owl	*Asio flammues*	7	N	L	Grassland, Freshwater Marsh
Bank Swallow	*Riparia riparia*	4	N	L	Coastal Sage Scrub, Riparian, Freshwater Marsh
California Gnatcatcher	*Polioptila californica california*	2	N	M	Coastal Sage Scrub
San Diego cactus wren	*Campylorhynchus brunneicapillus cousi*	7	N	L	Coastal Sage Scrub
Loggerhead shrike	*Lanius ludovicianus*	7	N	L	Coastal Sage Scrub, Grassland, Riparian, Oak Woodland, Desert Scrub, Desert Wash
Horned lark	*Eremophila alpestris actis*	7	N	L	Grassland, Montane Meadow
Tricolored blackbird	*Agelaius tricolor*	7	N	L	Grassland, Riparian, Freshwater Marsh
Rufous-crowned sparrow	*Aimophila ruficeps canescens*	7	N	L	Coastal Sage Scrub, Chamise Chaparral
Bell's sage sparrow	*Amphispiza belli belli*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Grasshopper sparrow	*Ammodramus savannarum*	7	N	L	Grassland

APPENDIX E

REPORT ON PROTOCOL SURVEYS FOR CALIFORNIA GNATCATCHERS

EVERETT AND ASSOCIATES
ENVIRONMENTAL CONSULTANTS
ESTABLISHED IN 1975

POST OFFICE BOX 1085
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12 July 2011

Mr. Richard Bagley
28967 Palos Verdes Drive E
Rancho Palos Verdes, CA 90275-5252

Re: Report on California Gnatcatcher Presence/Absence Surveys and Directed Surveys for Thread-leaved Brodiaea, Artesian Road Properties (APNs 267-145-09 through 12 and 267-146-05 and 08), San Diego County, California.

Dear Mr. Bagley,

This report presents the results of protocol and directed surveys that I recently conducted for sensitive plant and animal species on your six lots in the Artesian Road area of eastern Rancho Santa Fe in unincorporated San Diego County. The surveys were conducted within the above-referenced parcels totaling 16.23 gross acres.

CALIFORNIA GNATCATCHER SURVEYS

Below are the results of three focused presence/absence surveys that I recently conducted for the federally threatened Coastal California Gnatcatcher *Polioptila californica californica* on your parcels:

The California Gnatcatcher is a federal threatened species, a state species of concern, and is a "target species" of the NCCP process. This species is a non-migratory resident whose range covers the coastal plains and foothills of Southern California and northern Baja California. In San Diego County, it is widespread in coastal lowlands below about 2,000 feet elevation and typically occurs in or near Coastal Sage Scrub (CSS). The California Gnatcatcher population is seriously declining due to loss of habitat. Between 85% and 90% of this species' habitat has been lost to urban or agricultural development. It is almost extirpated from Ventura, San Bernadino, and Los Angeles counties. The U.S. population is estimated to be just under 5000 pairs. San Diego County appears to be the center of abundance within the United States for this species.

The survey site is located both north and south of Artesian Road east of Rancho Santa Fe/Fairbanks Ranch and west of the west end of El Rancho Del Norte and Rancho Bernardo (Figures 1, 2, and 4). The site is located in a sparsely developed area south of the San Dieguito River and Crosby Ranch. The approximate USGS coordinates for the site are 33°01'N, 117°10'W (Rancho Santa Fe 7.5 minute series quadrangle, see Figure 3), as determined on-site by Global Positioning System (GPS) receiver.

Site Conditions And Vegetation Communities

The northernmost parcel of the six surveyed contains medium quality Diegan CSS. Dominant plants include California sagebrush *Artemesia californica* and flat-top buckwheat, *Adenostoma fasciculatum* interspersed with non-native grasses.

The three contiguous parcels to the south, running to Artesian Road, have apparently been grazed by horses for many years, and contain a mosaic of Non-Native Grassland, Disturbed areas, and widely dispersed re-emergent CSS plant species.

South of Artesian Road the northernmost parcel is dominated by dense, mature Chamise Chaparral that has apparently not burned in many decades. Portions of the parcel are routinely cleared for fire prevention purposes and a small portion contains Non-Native Grassland.

The southernmost parcel was burned in the 2007 Witch Fire, and now is dominated by non-native grasses.

Methods

I surveyed the site three times in conformance with current U.S. Fish and Wildlife Service (USFWS) protocol guidelines. The surveys were conducted under the authority granted to me by USFWS permit # TE-788036. The surveys were conducted by slowly walking routes within the project site (See Figures 5 and 6). After stopping, listening, and observing at intervals of approximately 30 meters, recorded Coastal California Gnatcatcher vocalizations were played for 30 seconds. After the vocalizations were played, an additional two minutes were spent observing and listening before moving to the next observation site. Weather conditions and time of day were appropriate for the detection of Coastal California Gnatcatchers (Table 1).

TABLE 1
SCHEDULE OF SURVEYS AND CONDITIONS
ARTESIAN ROAD PARCELS

Date	Time (hours)	Temperature (°F)	Wind Speed (mph)	Cloud Cover (%)
5/31/11	0930-1130	66 - 69	0	0
6/09/11	0700-0900	62 - 66	0-3 NW	100
6/20/11	1000-1200	68 - 70	3-5 NW	0

Results

No California Gnatcatchers were detected during the focused surveys. Only the northernmost of the six parcels surveyed appears to have a vegetation structure and density suitable for occupation by California Gnatcatchers.

DIRECTED SURVEYS FOR THREAD-LEAVED BRODIAEA

This report also presents the results of two directed surveys that I conducted on the six parcels for the Federally Threatened and State Endangered thread-leaved brodiaea *Brodiaea*

filifolia (TLB). This plant species is known to occur near the survey site on suitable soils. Thread-leaved brodiaea, a monocot in the Lily Family, is substantially declining throughout its Southern California range. It grows at the edges of vernal pools and in flood plains or areas with appropriate (mostly clay) soils. It typically occurs in open grasslands and CSS. The stalk and flower sprout from a corm, and are unlikely to be noted except during its short flowering season, typically around May and June.

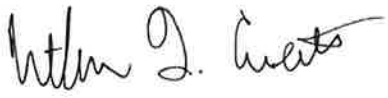
The survey was conducted by walking east-west transects through all six parcels at intervals of approximately eight meters. This allowed complete visual coverage of the survey area. The first survey was conducted on 31 May 11, after completion of the first California Gnatcatcher Survey. The second survey was conducted on 9 June 11, after completion of the second California Gnatcatcher Survey.

To ensure that the survey dates were appropriate, a nearby site with known TLB populations was also monitored. At the reference site, the species was still in bloom at the time of the second site survey.

No thread-leaved brodiaea were detected on the parcels surveyed. Although soil types on several of the parcels are conducive for TLB, the presence of very dense mature vegetation or California Ground Squirrels *Spermophilus beecheyi* precludes most of the area surveyed from being occupied by TLB.

Thank you very much for the opportunity to conduct this work and prepare this report. Please contact me if you need any additional information or clarification.

Sincerely,



William T. Everett
Certified Biological Consultant
U.S. Fish & Wildlife Service California Gnatcatcher
Survey Authorization Permit # TE-788036

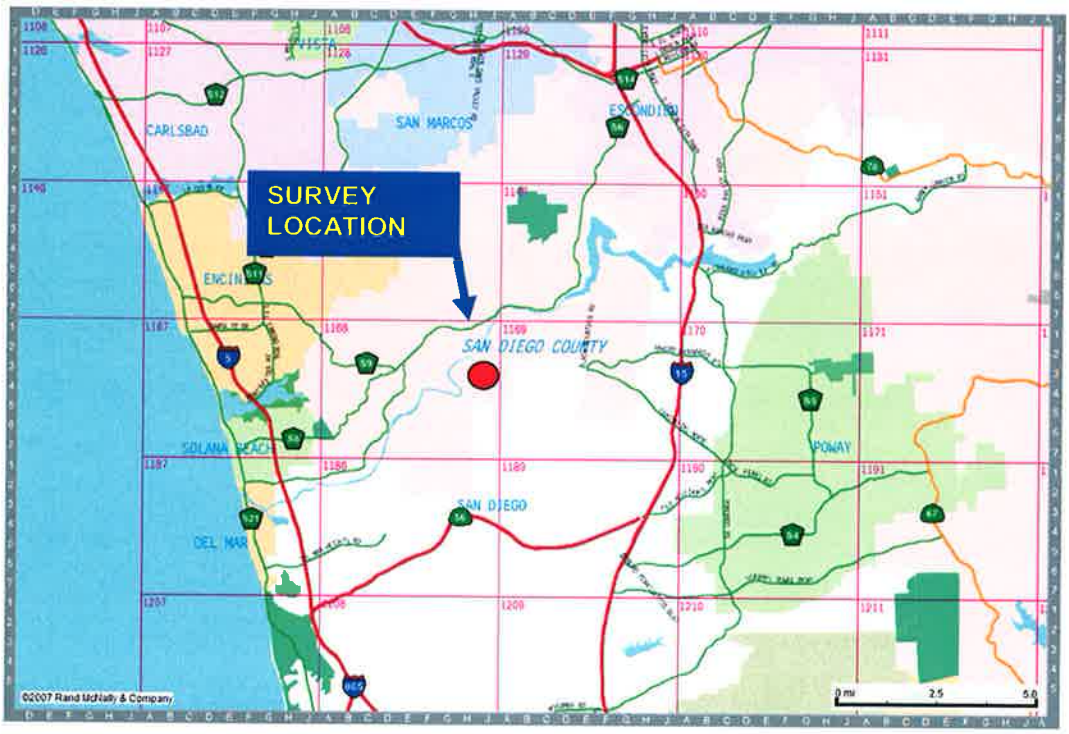


Figure 1. Location of Surveys in regional context. Thomas Bros. Map page #1168 J3.

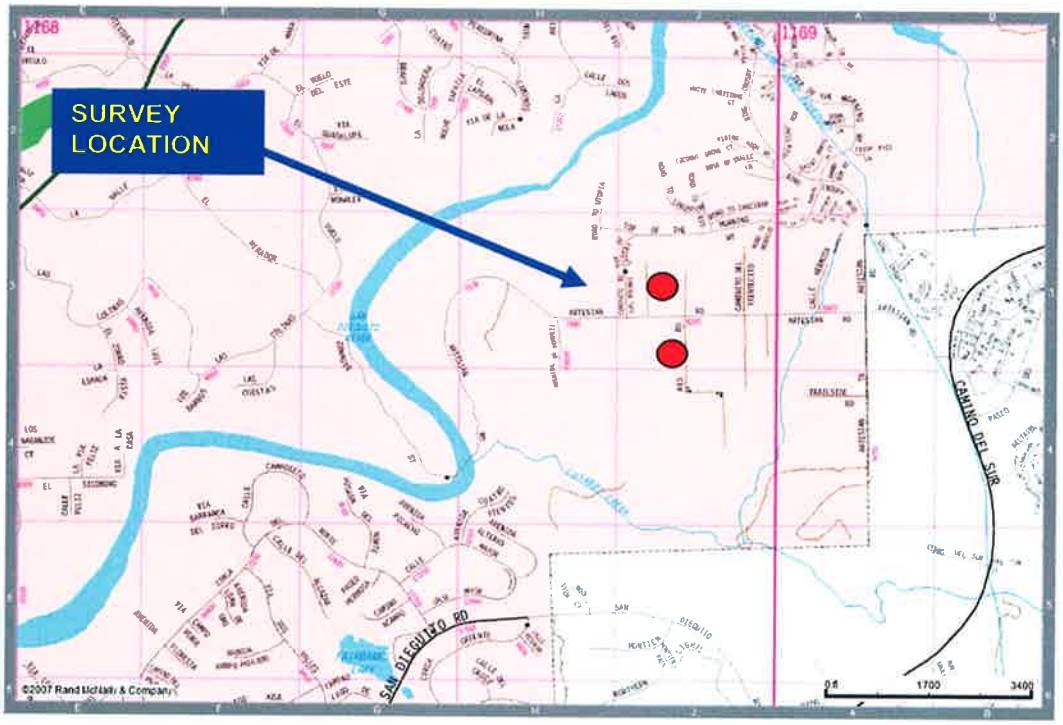


Figure 2. Detail location map of Surveys. Thomas Bros. Map page #1168, J3.

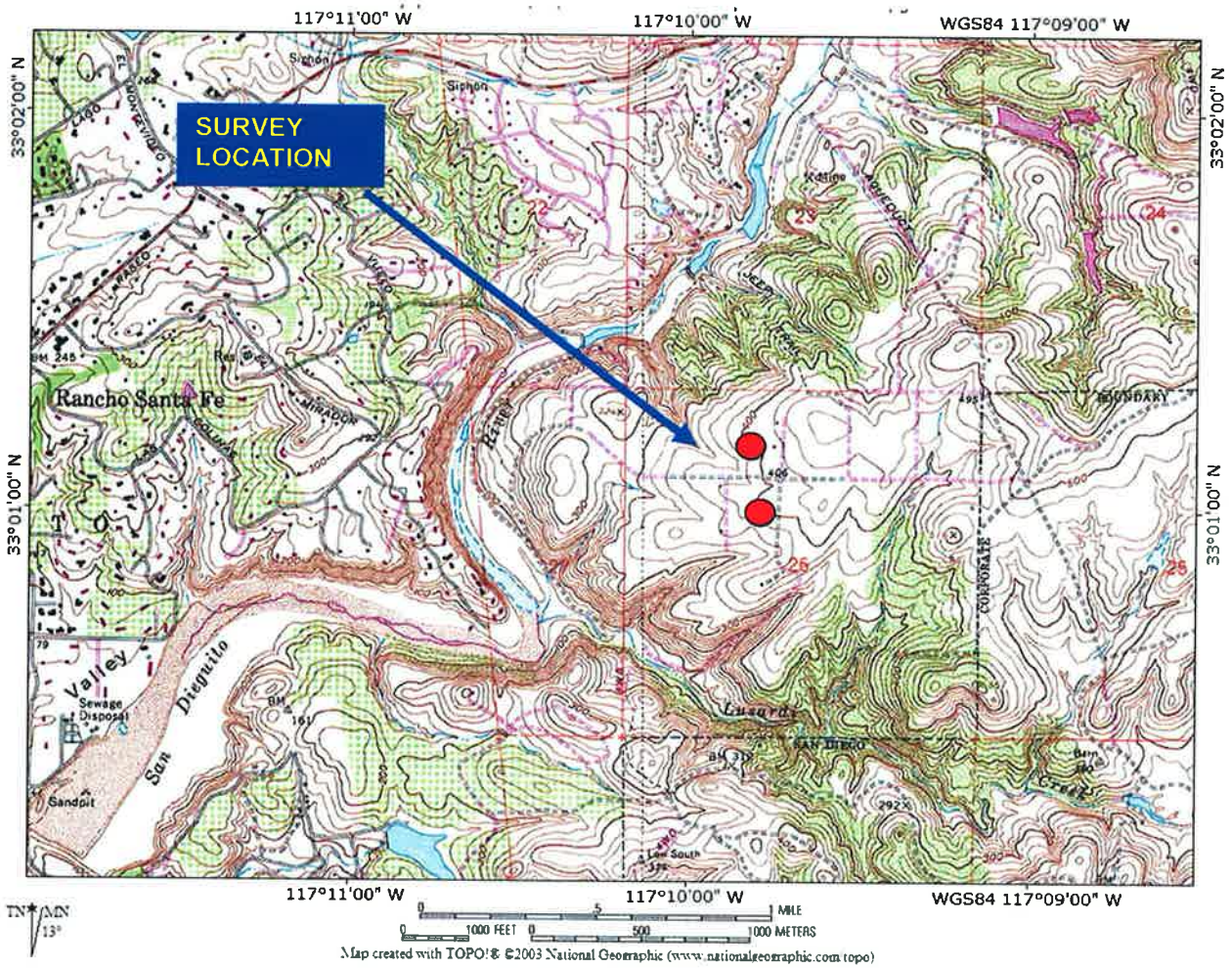


Figure 3. Topographical map showing Survey location. Taken from USGS Rancho Santa Fe 7.5 minute series quadrangle.

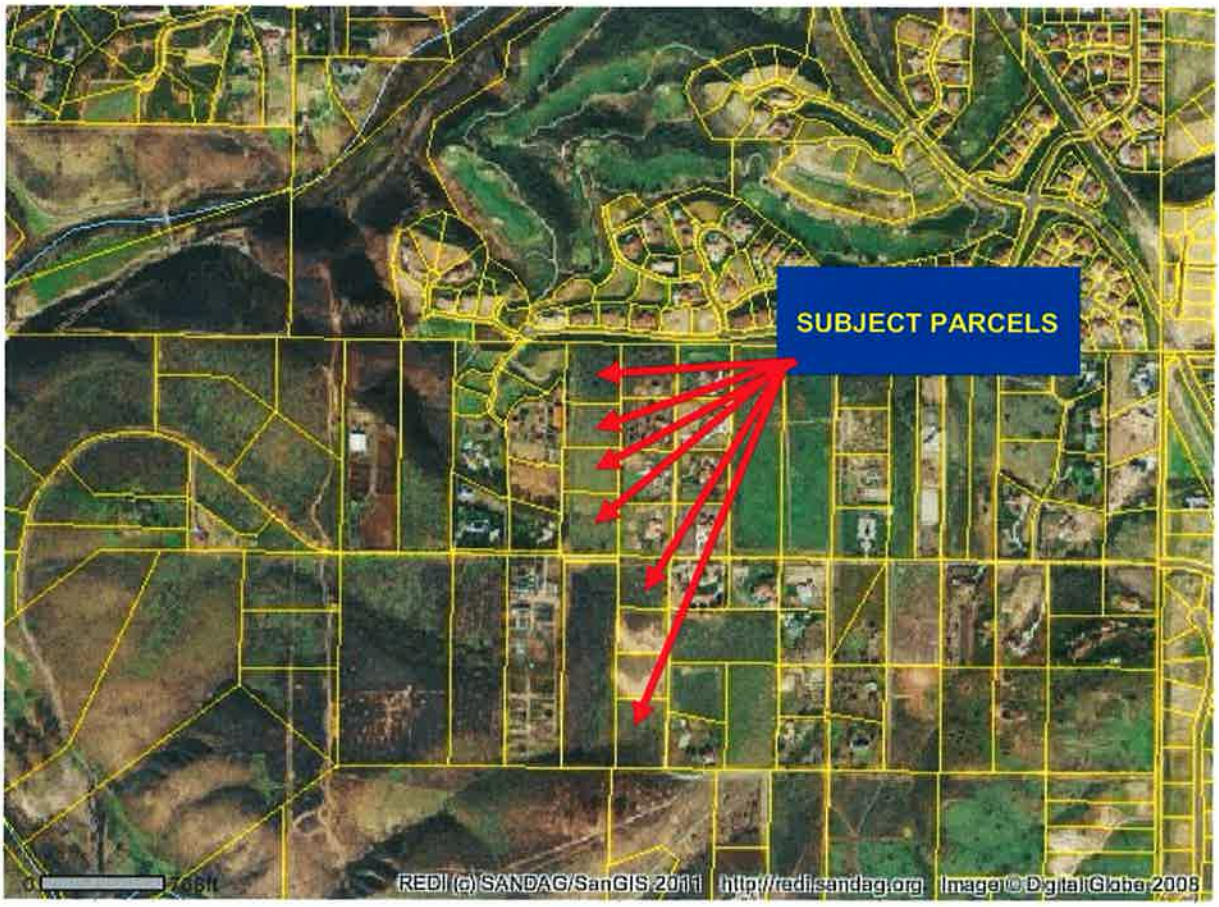


Figure 4. Close-up satellite photograph of Survey locations (photograph by SANDAG/SanGIS 2008), showing parcel boundaries for the Survey locations and adjacent properties. Top of photo is true north.

Figure 5. Close-up satellite photograph of Survey site. Top of photo is true north. Dotted yellow line indicates route taken for gnatcatcher surveys.

Figure 6. Close-up satellite photograph of Survey site. Top of photo is true north. Dotted yellow line indicates route taken for gnatcatcher surveys.

APPENDIX F

PREPARER QUALIFICATIONS

William T. Everett is a research, consulting, and conservation biologist with more than 35 years experience in the San Diego environment and around the world. He has logged more than 14,000 hours of field work, all detailed with field notes. In the 1970's Bill apprenticed in the study of chaparral ecology under Frank Gander, the retired but renown premier California botanist of the 1930s and 40s. Although his specialty is ornithology, Bill has a long-standing interest in all endangered species management and conservation issues. As President then Conservation Chairman of the San Diego Chapter of the Audubon Society in the late 1970s, he gained a keen understanding of the conservation challenges facing a growing Southern California. He subsequently became one of the first Biological Consultants certified by the County of San Diego in the 1980s. Bill is a Fellow of the National Association of Environmental Professionals (NAEP) and subscribes to the NAEP Code of Ethics and Standards of Practice for Environmental Professionals.

Bill Everett has published numerous scientific articles and conducted research in Southern California, Alaska, Antarctica, Baja California, South America, and throughout the tropical Pacific Ocean. In 1977, in recognition of his accomplishments, he was appointed as a Research Associate of the Department of Birds and Mammals of the San Diego Natural History Museum, a position he holds to this day. In 1990 he was elected as a Research Fellow of the Zoological Society of San Diego, and in 1988 was appointed as the Senior Conservation Biologist of the Western Foundation of Vertebrate Zoology. The Royal Geographic Society of London elected Bill as a Fellow in 1996, following his election as a Fellow of the Explorers Club in 1990.

Hired as a biologist for the U.S. Fish and Wildlife Service in 1977, Bill conducted research on endangered Peregrine Falcons in Northern California at a time when their continued existence was questionable. His interest in threatened species led to publication by the Audubon Society in 1979 of his paper entitled "Threatened, Declining and Sensitive Bird Species in San Diego County" (Sketches 36:1-2). This paper contained the first published account of the decline of the California Gnatcatcher.

Beyond the Southern California area, Bill has prepared the seabird impacts sections for the Draft and Final Environmental Impact Statements for Hawaii-based Pelagic Fisheries of the Western Tropical Pacific Ocean (2001), received a National Science Foundation major grant to lead an International Biocomplexity Survey and Expedition to Isla Guadalupe, Baja California, Mexico (2000), led the effort to save North America's most endangered bird species, the San Clemente Loggerhead Shrike (1991-1997), and currently heads up efforts to restore bird populations on Wake Atoll and Christmas Island in the central Pacific.

Bill holds a U.S. Fish and Wildlife Master Bird Banding Permit (#22378) with Endangered Species Authorization, and California Gnatcatcher Survey Authorization Permit # TE-788036. He received his Masters Degree from the University of San Diego in 1991, and completed a Post-Graduate Program at Harvard University's John F. Kennedy School of Government in 1997.

Bill served as a member of the Conservation and Research Committee of the Zoological Society of San Diego since the committee was first established. In 1990, he founded the Endangered Species Recovery Council (www.esrc.org), an international organization of scientists and conservationists dedicated to finding solutions to the problem of species extinctions. He continues as President of the organization.

In May 2002 Bill was honored in New York as a first recipient of the Explorers Club "Champions of Wildlife" award.

BIOLOGICAL RESOURCES MAP

TPM 17341 AND GRADING PLAN L-15684

LEGEND

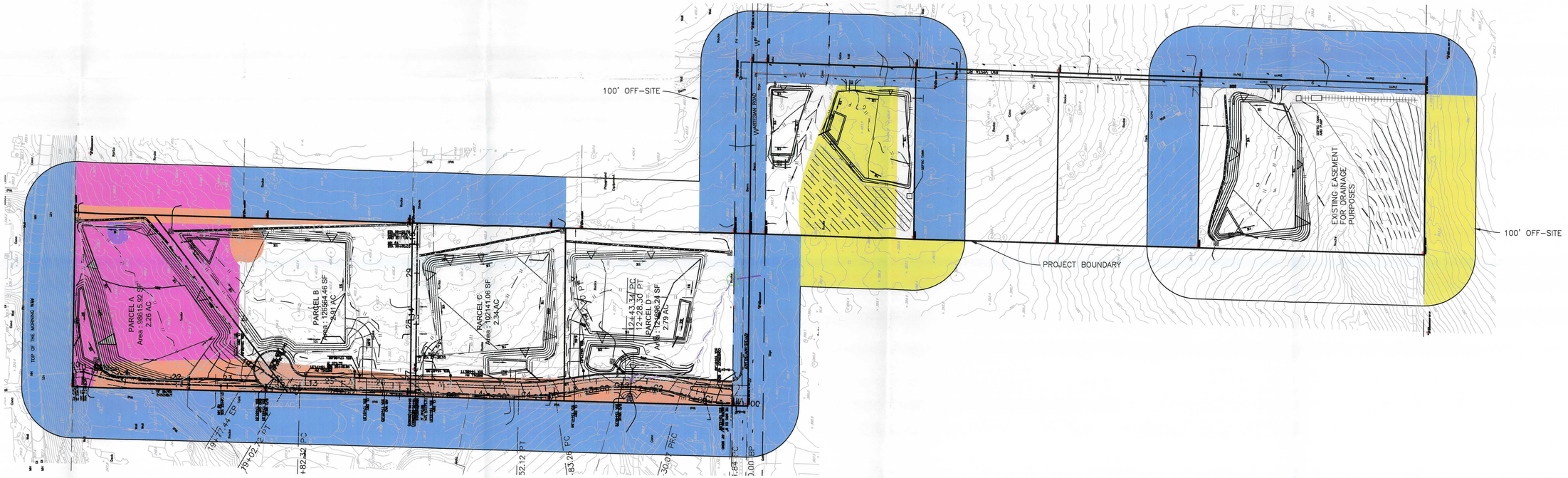
- CHAMISE CHAPARRAL — HOLLAND CODE 37200
- DIEGAN COASTAL SAGE SCRUB — HOLLAND CODE 32500
- EUCALYPTUS WOODLAND — HOLLAND CODE 79100
- DISTURBED HABITAT — HOLLAND CODE 11300
- URBAN / DEVELOPED — HOLLAND CODE 12000
- NON-NATIVE GRASSLAND — HOLLAND CODE 42200

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.



VICINITY MAP

NOT-TO-SCALE

EXISTING, IMPACTED, AND PRESERVED HABITAT ON THE PROJECT SITE

PLANT COMMUNITY	ACREAGE ON-SITE	IMPACTED ACREAGE	IMPACT NEUTRAL	ACREAGE PRESERVED ON-SITE	OFF-SITE MITIGATION REQUIRED (RATIO[2])
Non-Native Grassland (Tier III)	11.33	10.76	0.57[1]	0.57[1]	5.38 (0.5:1)
Diegan Coastal Sage Scrub (Tier II)	2.00	2.00	0	0	2.0 (1:1)
Eucalyptus Woodland	0.04	N/A	N/A	N/A	0
Disturbed Habitat	1.68	N/A	N/A	N/A	0
Urban/Developed	0.93	N/A	N/A	N/A	0
Chamise Chaparral Tier III)	0.24	0.24	N/A	0	0.12 (0.5:1)
Total	16.22	12.43	0.57	0.57	7.50

1. Contained within an existing open space easement
2. Ratios pursuant to the Biological Mitigation Ordinance (BMO), assuming mitigation site is within a BRCA

BASE MAP PREPARED BY:

SAN DIEGUITO ENGINEERING, INC.
4407 MANCHESTER, SUITE 105
ENCINITAS, CA 92024
PHONE: (760) 753-5525

BIOLOGICAL RESOURCES MAP PREPARED BY:

William T. Everett 12/21/2012

WILLIAM T. EVERETT
EVERETT AND ASSOCIATES
ENVIRONMENTAL CONSULTANTS
POST OFFICE BOX 1085
LA JOLLA, CALIFORNIA 92038
858 456-2990

NOTE:

VEGETATION COMMUNITY MAPPING IS PREPARED USING OVERLAYS OF CURRENT AERIAL PHOTOGRAPHS AND IS VERIFIED ON THE GROUND TO THE GREATEST DEGREE POSSIBLE IN THE ABSENCE OF A SYSTEMATIC LAND SURVEY. ALL VEGETATION AREAS, BOUNDARIES, AND FUEL MODIFICATION ZONE LIMITS ARE ESTIMATES SUBJECT TO FINAL DELINEATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

NOTES